# U.S. Farm Economy in 2001

While the general weakness in agricultural markets of the past couple of years continues, early signs of recovery are evident. Many indicators continue to remain favorable, including farm asset values and debt levels, due in large part to record government payments. Global stocks of major crops are not excessive compared with use, farm prices are generally up from a year ago, and reduced plantings in 2001 could lead to a further drawdown of stocks.

However, the next couple of years are unlikely to see a strong rebound in farm prices and market income for major crops, unless global crop production drops significantly. Under current farm legislation and programs, assuming no supplemental payments, net cash income in 2001 is projected to be the lowest since 1994 and about $4 billion below the average of the 1990s.

### *Commodity Markets Edge Up…*

The U.S. economy continues to enjoy its longest expansion in history (although slowing considerably in recent months), characterized by strong income growth, low unemployment, surging productivity, and low inflation and interest rates. Production agriculture, while bolstered by the expansion, has been particularly vulnerable to foreign competition, a strong dollar, economic recession in foreign countries, and increases in energy costs.

Prices of many agricultural commodities are beginning to pick up. In February, the index of prices received for all crops was up 5 percent from a year earlier and the index of prices for livestock was up 9 percent. Nevertheless, the commodity price recovery is generally from relatively low levels. For the 1999/2000 marketing year, the average price of soybeans was the lowest since 1972/73, the prices of corn and wheat the lowest since 1986/87, the price of rice the lowest since 1992/93, and the price of cotton the lowest since 1974/75. Cattle and hog prices were also relatively weak in 1999 but recovered more sharply than major crop prices in 2000. Milk prices were relatively strong in 1999 but fell to a 9-year low in 2000.

In addition to facing low agricultural commodity prices, many producers in the last several years have been confronted with weather-related problems and, more recently, with increases in prices for energy-related inputs. Sierra snowpack levels, which California's reservoirs depend on for electricity generation and farmland irrigation, continue below normal although improving.

In the past 3 years, Congress responded to potential sharp declines in farm income and adverse weather by providing nearly $25 billion in supplemental assistance to farmers and ranchers, greatly limiting the farm financial stress they would have otherwise faced. These payments, plus payments authorized under the 1996 Farm Act, pushed government payments to a record-high $22 billion in calendar 2000 and Commodity Credit Corporation (CCC) outlays to a record $32 billion in fiscal 2000.

In fiscal 2001, lower government payments are projected to reduce CCC outlays to slightly over $20 billion. Had Congress not provided nearly $9 billion in supplemental assistance in 2000, net cash income would likely have fallen to $47.5 billion in calendar 2000, the lowest since the farm financial crisis of the mid-1980s. Instead, net cash income reached $56.4 billion in 2000, nearly $2 billion above the average of the 1990s.

### *. . . As Do U.S. Ag Exports*

During the mid-1990s, a confluence of factors boosted agricultural exports: world gross domestic product (GDP) grew at an annual rate of 3 percent compared with less than 2 percent during the early 1990s, and global grain and oilseed production fell about 4 percent. In the mid-1990s, the value of U.S. agricultural exports rose sharply, as record-high grain prices pushed the value to a record $60 billion in fiscal 1996, up by more than one-third from just 2 years earlier.

The surge in exports led many to conclude that U.S. agriculture was entering a period of long-term prosperity—continued and steady increases in world economic activity would be enough to keep farm prices strong even with normal weather. However, benign weather and strong prices led to an abrupt turnaround in world crop production, which increased sharply in 1996/97. In 1998, world economic growth, excluding the U.S., fell to a paltry 1.3 percent. The growth slowdown combined with continued strong crop production caused crop prices to decline sharply.

For bulk products such as feed grains, wheat, soybeans, cotton, and rice, export value declined one-third from 1996 to 2000. Accounting for nearly all of the

drop in export value of bulk commodities were lower export prices, with export volume falling only slightly. In contrast, the export value of high-value agricultural products (total ag exports minus bulk commodities) remained nearly steady at about $32 billion during 1996-2000.

In 2001, the value of bulk exports is forecast to increase $0.5 billion to $18.3 billion, remaining well below 1996's $28 billion, while volume is expected to be just under 1996's 119.4 million tons. The export value of high-value agricultural products is forecast to increase to $34.7 billion in 2001, bringing total export value to $53 billion this year. This is up from the recent low of $49 billion 2 years ago, but still well below the 1996 record.

The turnaround in several key macroeconomic indicators makes the outlook for higher exports more positive than it has been in some time. World GDP excluding the U.S. grew nearly 4 percent in 2000, the largest growth rate in more than a decade. In 2001, with the economic slowdown in Japan, world GDP excluding the U.S. is expected to slow from last year's high rate. However, many countries that were in recession in 1998 and 1999 are now registering strong growth rates. Following the 1997/98 Asian financial crisis, South Korea's economy grew nearly 11 percent in 1999 and over 9 percent in 2000, and economic growth in Southeast Asian countries rose to 3.6 percent in 1999 and to almost 6 percent last year. In addition, several Latin American countries registered positive growth in 2000 after being in recession in 1999.

Another key factor for U.S. exports is the U.S. exchange rate. The value of the dollar has increased sharply in the last several years, raising the cost of U.S. farm products to foreign buyers and the cost of U.S. agricultural products relative to those of competitors. Between April 1995 and September 2000, the U.S. dollar appreciated by 25 percent against currencies of *countries purchasing* U.S. agricultural products, reversing about a decade in which the value of the dollar declined relative to other currencies. Over the same period, the U.S. dollar appreciated 42 percent relative to currencies of U.S. agricultural *competitors*. Declining interest rates and a slowing economy should weaken the dollar in 2001, making U.S. agricultural products moderately more attractive to foreign buyers.

**U.S. Farm Economy at a Glance**

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|---|---|---|---|---|---|---|
| | | | *$ billion* | | | |
| Cash receipts | 199.1 | 207.6 | 196.6 | 188.6 | 196.0 | 200.0 |
| Government payments | 7.3 | 7.5 | 12.2 | 20.6 | 22.1 | 14.1 |
| Cash expenses | 159.8 | 168.6 | 167.2 | 170.4 | 178.0 | 179.5 |
| Net cash income | 57.6 | 58.5 | 55.4 | 54.6 | 56.4 | 50.7 |
| Farm debt | 156.1 | 165.4 | 172.9 | 176.4 | 180.6 | 182.8 |
| Farm assets | 1,004.8 | 1,053.1 | 1,085.5 | 1,116.6 | 1,121.0 | 1,132.1 |
| | | | *Percent* | | | |
| Debt-to-asset ratio | 15.5 | 15.7 | 15.9 | 15.8 | 16.1 | 16.1 |
| | | | *$ billion* | | | |
| Agricultural exports | 59.9 | 57.4 | 53.7 | 49.2 | 50.9 | 53.0 |
| Agricultural imports | 32.5 | 35.7 | 36.8 | 37.3 | 38.9 | 40.0 |
| | | | *1995 = 100* | | | |
| Value of dollar* | 105.1 | 110.1 | 119.2 | 117.5 | 120.2 | 113.8 |
| | | | *Percent change* | | | |
| Consumer price index for food | 3.3 | 2.6 | 2.2 | 2.1 | 2.3 | 2-2.5 |

2000 estimate. 2001 forecast.
*Agricultural trade-weighted, inflation-adjusted.
Economic Research Service, USDA

## *Farm Income to Drop*

Farm cash receipts are forecast to reach $200 billion in 2001, up $4 billion from last year. This would be the second-highest level of farm cash receipts, surpassed only by the 1997 record (nearly $208 billion). Crop receipts in 2001 are projected to be down $11 billion from 1997, while livestock receipts are forecast to be up about $3 billion. Compared with last year, crop receipts are forecast to increase by $3.6 billion to slightly over $100 billion, while livestock receipts are projected to be about unchanged at slightly under $100 billion.

These aggregate figures mask steep declines in cash receipts and income for major crops. Cash receipts for grains, soybeans, and cotton, projected to increase slightly to $45 billion in 2001, will be down from a record $57 billion in 1997. Dairy receipts are forecast to be up from last year.

Assuming no supplemental assistance for 2001 crops, net cash income is projected to decline from $56.4 billion last year to under $51 billion in 2001, as production expenses continue to rise and government payments decline. Increases in petroleum prices and interest rates along with higher prices for other production inputs, including hired labor, increased farmers' production expenses by 4 percent or $7.6 billion in 2000, with higher fuel and oil prices accounting for over one-third of the increase. In contrast, farm production expenses rose only 1 percent from 1997 to 1999.

In 2001, farmers' total cash production expenses are forecast to increase $1.5 billion to a record $179.5 billion. Even though total planted acreage is expected to fall in 2001, higher natural gas prices will raise expenses for nitrogen fertilizer. Expenses for hired labor, repairs, and marketing could also continue to trend up in 2001. Fuel expenses are expected to be about unchanged from last year, as petroleum prices moderate later this year. Despite recent interest rate reductions by the Federal Reserve, farm business interest expenses are projected to remain about steady in 2001. About two-thirds of bank nonreal estate loans made in 2000 are variable-rate loans, but these loans adjust at regularly scheduled intervals and lag the Federal Reserve rate.

Government payments have offset much of the decline in cash receipts for major

crops in the past few years, helping to maintain producers' cash flow. Direct government payments to farmers rose from under $8 billion in 1997 to a record $22 billion last year. In 1997, farmers received $6 billion in production flexibility contract (PFC) payments and about $2 billion in conservation program payments. In 2000, direct government payments included nearly $9 billion in supplemental assistance, nearly $5 billion in PFC payments, $6.4 billion in loan deficiency payments, and $2 billion in conservation program payments. Loan deficiency payments are available to producers whenever the prevailing market price (world price for cotton and rice) for a particular commodity falls below the price support loan rate. Producers received no loan deficiency payments in 1997 because prevailing prices exceeded the announced loan rates for program crops (feed grains, wheat, upland cotton, and rice) and oilseeds.

Because government payments are tied to both historical and current production of major crops, the largest farming operations receive most of the payments. (PFC payments are based on historical production, while loan deficiency payments and gains on marketing assistance loans are based on current production). In 1999, the 16 percent of farming operations with annual sales above $100,000 received nearly three-fourths of farm program payments.

In calendar 2001, government payments are projected to decline about $8 billion to slightly over $14 billion. This forecast includes no supplemental aid for 2001 crops, since legislation authorizing supplemental assistance for 2001 crops has not been enacted by Congress. Scheduled annual reductions in PFC payments under the 1996 Farm Act, as well as lower loan deficiency payments reflecting improving prices for major crops, are forecast to reduce government payments by $2.5-$3 billion in 2001. In addition, with no supplemental aid legislation in place for the 2001 crops, emergency assistance to farmers and ranchers is projected to fall from nearly $9 billion last year to about $3.5 billion in 2001. The $3.5 billion in emergency assistance was authorized by Congress last year to offset crop and market losses in 2000 and will be dispersed in 2001. The farm income situation in 2001 is not unlike that in recent years; this year some of the drop in government payments is expected to occur through lower loan deficiency payments that will be made up in greater returns from the market.

Should there be an income safety net for farmers? The Commission on 21st Century Production Agriculture addresses this and other issues. See page 20.

Absent new legislation, the regions and crops that have been most dependent on government payments are likely to see the greatest decline in farm income in 2001. The major field crops have had particular market difficulty in the past few years. Net cash income (excluding government payments) on a crop-year basis for the major field crops—wheat, rice, corn, sorghum, oats, barley, cotton, and soybeans—was low for the 1999-2000 crops and projected to remain low for the 2001 crops. Direct government payments accounted for three-fourths of net cash income for major field crops in 1999 and more than two-thirds in 2000.

For 2001, net cash income for major field crops is projected to fall by over $5 billion, declining from over $25 billion for the 2000 crop to less than $20 billion. The decline is slightly less than the amount of market loss assistance Congress authorized last year for major field crops.

### *Farm Finance Situation Remains Relatively Strong*

A national farm financial crisis has not occurred, in large part because of record government payments and increased off-farm income. Farm numbers have been fairly stable in recent years. The proportion of nonperforming farm loans has risen only slightly, the debt-to-asset ratio remains at about 16 percent (down from 23 percent during the mid-1980s farm financial crisis), and farm real estate values and land rental rates generally continue to rise. In 1999, U.S. farmland values rose 3 percent nationally and were up in 42 states, and cash rents paid for 2000 were up in 40 states. Bankers in the Chicago Federal Reserve District, for example, reported that land values in the district rose 7 percent over the 12-month period ending on October 1 of last year.

While the national picture appears secure, regional and sectoral problems persist. The combination of low prices and structural change have caused the number of dairy and hog operations to decline, and adverse weather in the Southeast, Southern Plains, and elsewhere has helped create regional pockets of farm financial stress.

Farm debt rose 2.4 percent in 2000, surpassing $180 billion for the first time since 1984. In 2001, farm debt is forecast to increase to slightly under $183 billion. Even though farmers' balance sheets are much improved from the mid-1980s, the projected drop in farm income lessens farmers' ability to repay existing debt.

A useful indicator of financial stress is debt held by farms as a percentage of the maximum feasible debt that farms can take on, which is referred to as debt repayment capacity utilization (DRCU). Maximum feasible debt is a calculation based on net farm income, the interest rate, an assumed 7-year average repayment period for debt, and bankers' guidelines on the maximum level of income that should be used for principal and interest. In 2000, U.S. farmers, on average, used a little over 60 percent of their maximum feasible debt, and this figure is forecast to increase to 65 percent in 2001.

The DRCU analysis may be taken a step further by looking at how this measure of debt stress is distributed among farming operations. Of the 2.2 million U.S. farms, about one-quarter (512,000 operations) are commercial farm businesses, selling at least $50,000 of output per year. These farms account for 90 percent of total U.S. production.

Commercial farms that cannot service their debt and that stop performing on their loans usually have debt equal to at least 240 percent of maximum feasible debt. In 1998, the number of farming operations in this category rose, but the number fell in 1999. Weak markets probably led producers to use government payments to pay down debt. In both 1999 and 2000, about 50,000 of the nation's

512,000 commercial farm businesses had DRCU of 240 percent or more. In 2001, the number is forecast to increase to 70,000.

Record-high government assistance to farmers is the most obvious reason farm financial stress has been limited. Another reason is the strong nonfarm economy, which has helped expand off-farm income opportunities for farm households. Earnings of farm operator households from off-farm sources averaged an estimated $60,000 in 2000, up from less than $36,000 in 1992. In recent years, about 90 percent of total income of the average farm household comes from off-farm sources, and the average income of farm operator households, including income from off-farm sources, has been above the average for all U.S. households. Off-farm jobs in rural areas are a major reason why the number of farms stabilized at 2.2 million in the 1990s.

### *Major Crop Markets Show Signs of Improvement*

Prices of major crops for the 2000/01 season are expected to register modest improvement from last year's 15- to 25-year lows, reflecting another year of large global production of major crops and ample stocks. Given no major weather disruptions in the world's major crop growing regions in 2001/02, further expansion in global demand for agricultural products—e.g., corn in Asia—is expected to lead to continued increases in major crop prices over the next several months and into the 2001/02 marketing year.

While it is too early to predict a substantial recovery in major crop prices in 2001, global stock levels going into the 2001 season are projected to be down sharply from a year earlier. At the end of this season, global grain stocks are projected to be down 10 percent from a year earlier and the lowest since 1996/97. As a result, world prices could move up sharply if weather adversely affects global crop production over the next several months.

U.S. winter ***wheat*** plantings last fall were down 5 percent from a year earlier and the lowest since 1971. While late plantings could reduce winter wheat yields,

## Trade-Generated Gains Strengthen Agricultural Sector In Long Run

USDA's new longrun (10-year) baseline projections indicate continuing recovery in the agricultural sector over the next several years from the market situation in the late 1990s that resulted in generally weak agricultural commodity prices. For the remainder of the period, continuing improvement in global economic growth leads to stronger U.S. exports, further gains in agricultural commodity prices, and rising farm incomes.

For several years in the late 1990s, farmers in the U.S. and abroad harvested large crops, while the global financial crisis weakened world agricultural demand. Strong foreign competition in a weakened global trade setting reduced the value of U.S. agricultural exports and market cash receipts to U.S. farmers. Net farm income was maintained at levels near the average of the 1990s only through large government marketing loan benefits and by additional funds provided to the sector through emergency and disaster assistance legislation.

Although some lingering effects of the global economic crisis remain, the general recovery underway in crisis countries has strengthened global demand and trade, and U.S. agricultural exports have risen. Nonetheless, the buildup of global supplies in the late 1990s keeps agricultural prices under pressure over the next several years, with marketing loan benefits continuing to have an important role in the U.S. farm sector. U.S. farm income declines in the initial years of the baseline, largely reflecting an assumption of a reduction in direct government payments to the sector from high levels of the past several years.

Longer run developments in the agricultural sector reflect continuing macroeconomic improvement. Structural reform in countries most affected by the global financial crisis of the late 1990s leads to strengthening world economic growth, particularly in developing countries, providing a foundation for further gains in trade and U.S. agricultural exports. Expanding production in a number of foreign countries (e.g., Brazil and Argentina), however, results in continued strong export competition throughout the baseline period. Nonetheless, growth in trade leads to rising market prices, increases in farm income, and improvement in the financial condition of the U.S. agricultural sector.

Consumer food prices are projected to continue a long-term trend of rising less than the general inflation rate. The trend in consumer food expenditures toward a larger share for meals eaten away from home is expected to continue.

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*The USDA baseline provides longrun projections for the agricultural sector through 2010. Projections cover agricultural commodities, agricultural trade, and aggregate indicators of the sector such as farm income and food prices. The projections are based on specific assumptions regarding macroeconomic conditions, policy, weather, and international developments. The baseline assumes no shocks due to abnormal weather or other factors affecting global supply and demand. The 10-year baseline scenario assumes continuation of current agricultural law of the 1996 Farm Act. The baseline also assumes no further ad hoc emergency and disaster assistance.*

*The baseline projections are one representative scenario for the agricultural sector for the next decade. As such, the baseline provides a point of departure for discussion of alternative farm-sector outcomes that could result under different assumptions. The projections in the USDA baseline report, which reflect a composite of model results and judgmental analysis, were prepared in September through November 2000.*

*USDA's complete 2001 baseline projections are available at: http://www.ers.usda.gov/briefing/baseline/*

# Agricultural Economy

weather conditions this spring will be the major factor in determining wheat yields. Reduced wheat supplies in 2001/02 are expected to lead to the second consecutive year of reduced carryover and rising farm prices.

In 2001, higher natural gas prices will increase ***corn*** producers' fertilizer and irrigation costs. These higher costs are expected to lower corn plantings in 2001. Assuming normal weather, lower acreage coupled with expanding ethanol use and another year of strong export opportunities supported by continued global economic growth could tighten ending stocks, strengthening market prospects for corn in 2001/02.

Less fall-planted wheat, higher fertilizer prices, planting flexibility, and the benefits of the soybean marketing loan program provide an incentive for further expanding ***soybean*** plantings in 2001. Assuming normal weather, higher acreage could lead to another year of record soybean production and of rising carryover, even though total use could also reach another record in 2001/02. The European Union's ban on the use of meat and bone meal in animal feeds could raise soybean meal exports, but foreign competition is likely to remain intense. Under pressure of rising stocks, soybean prices could decline in 2001/02.

U.S. ***red meat and poultry*** production posted a 1-percent gain in 2000. Despite last year's record in total red meat and poultry production, cattle and hog prices were up as demand for meat was strong.

In 2001, meat production is expected to be unchanged—gains in pork and poultry production are offset by declines in beef following several years of heavy heifer slaughter. Declining beef production is expected to push cattle prices higher, while increasing pork production could pressure hog prices, especially in the last quarter of 2001. Broiler producers, in response to continued low prices through most of 2000, have begun to reduce their rate of expansion, and broiler prices in 2001 are projected to be about unchanged from last year after falling 3 percent in 2000. Some recovery in milk prices is also expected as the surge in milk production over the past 2 years dissipates. Livestock, poultry, and dairy producers should benefit from another year of low feed costs.

The outlook for ***horticultural crops*** is very uneven. Cash receipts for these crops as a group are projected to be up in 2001, and the value of exports is forecast to reach a record $11 billion in fiscal 2001. However, prices for some horticultural crops are being adversely affected by large supplies. For instance, prices of apples, pears, and potatoes were down at least 15 percent, and prices of lemons and grapefruit were off more than 50 percent in February, compared with a year earlier.

Over the next several years, the agricultural sector is expected to continue to recover from the current weak market situation. Increases in exports and domestic use are expected to boost farm cash receipts, but farm income could fall below recent levels during the next few years, as gains in cash receipts fail to offset lower government payments (assuming no additional supplemental assistance). **AO**

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## In upcoming issues of *Agricultural Outlook*

- Field crop plantings in 2001
- *AO*'s ongoing series on farm policy issues and proposals
- Farm credit use in 2001
- Government payments to agriculture: accounting for the funds